Roles of media and media literacy education: lives of Chinese and American adolescents

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Abstract:

Background: Along with media saturation in society, concerns and issues arise about children's media uses and the roles of media in their lives; both China and USA have the most media and Internet users in the world, but neither has formal media literacy education in the school curriculum. To decide how important media literacy education is for adolescents in these countries, we need to understand how they use media and what impact that media literacy may have in their lives.

Aims: To describe and understand roles of media (TV, radio, music, computer, videogames and Internet) and media literacy education in Chinese and American secondary students' lives and their uses of media.

Method: Surveys were conducted among Chinese adolescents. Questionnaires about media uses were sent to secondary schools in three cities in China, and a total of 955 questionnaires were returned by Chinese 7th- 12th graders; the results were compared with data drawn from American national studies on adolescents' media uses.

Results: Adolescents in both countries spend a great deal of their time using a variety of media on a daily basis. The results describe the patterns of their media use, and indicate the importance of media literacy education, a 21st Century skill.

Conclusion: Media play similar important roles in Chinese and American adolescents' lives, so does media literacy education. The article concludes with suggestions for how to integrate media literacy education into the school curriculum.

Keywords: media uses / media literacy/ American and Chinese adolescent education

媒体和媒介素質教育在中美青少年生活中的作用

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摘要

背景：隨著媒體使用在家庭中的不段增加，人門對青少年及其媒體使用越來越關註，並提出了許多問題。中國和美國都在世界上擁有最多的媒體及網路使用者，但學校的課程中卻沒有正式的媒介素養教育。要回答是否需要加強對兩國青少年媒介素養教育，必須先了解他們的媒體使用情況及媒介素養教育對他們能起何作用。

目的：描述和了解中美中學生的媒體使用及媒體（電視，電台，音樂，電腦，電子遊戲和因特網）和媒介素養教育在他們生活中的作用。

調查方法：通過問卷方試對中國青少年進行了調查。問卷被送往四個城市的中學，共有955名7－12年級學生交回了問卷。文章將此調查結果的數據與美國幾個重要的國家研究結果進行了比較。

調查結果：兩國的青少年每天都花大量的時間使用各種媒體，描述了他們媒體使用的規律，並揭示了媒介素養教育在21世紀的重要性。

總結：各種媒體及媒介素養教育在兩國青少年的生活中起着非常重要的作用。文章結尾介紹了許多如何在課程裏增加媒介素養教育的方法。

關鍵詞：媒體使用／媒介素養教育／中美青少年教育

As we witness the changes brought upon by advancing technology and globalization, we become increasingly dependent on mass media -- TV, radio, Internet, music, videogames, among others. They play tremendous roles in our lives. Over 80 percent of children in kindergartens use computers, and over 50 percent of children under age 9 use the Internet (NCTE, 2007). The Net generation, growing up with technology, is especially impacted. They use electronic media to entertain, to learn, to communicate and to connect to the world daily. Young people today spend an average of 6.5 hours a day using media and are exposed to media content for more than 8.5 hours a day (Roberts, Foehr, & Rideout, 2005) as compared to less than 6 hours a day in 1999 (Gentile, & Walsh, 2002).

A national survey found that 92% of children, ages 2 – 17, play video and computer games (National Institute on Media and the Family, 2001). One third of children (12 – 14 years) own a cell phone, rising dramatically to 57% of older adolescents (ages 15 – 18) (Pew Internet and American Life Project, 2005). According to the Simultaneous Media Usage Survey (SIMM) conducted by BIGresearch in 2003, (American Press Institute, March 24, 2004), 70% of media users report using two or more forms of media simultaneously. Interestingly, 33% of children aged 8 to 17 said that the Web would be their medium of choice if they could only have access to one type of media (National Institute on Media and the Family, 2006).

As Gigli (2004) suggests, "A look at the world media landscape for children and youth immediately presents two opposing themes: opportunities and risks" (p. 1). Globalization of media brings opportunities to broaden children's outlook and provides more equal access to information, but also threatens cultural identification and values. Technological advances bring the promise of new skills and greater youth participation in society, but also increase the risk of child exploitation and informational divide. Issues and concerns surrounding children's heavy media use include: the impact of the Internet on society, online plagiarism, online safety, proper behaviors in the virtual world, pop culture, vanishing ethnic cultures, effects of media on education, digital divide, generation gaps, globalization, family relationships, effects of advertising on children, and many more. There is an urgent need for societies to protect youth and empower them to shape their own media environments.

However, as Roberts, Fodhr, & Rideout state, (2005) "We can not even begin to address these questions – or to ask the many others we should be discussing – without first establishing just what role media play in young people's lives" (p. 4). Before we engage in further conversations on how to address the issues and concerns relating to young people's heavy media uses, we need to understand how they use media and how influential media use is in their lives. With this goal in mind, the researchers set out to examine and describe the patterns and characteristics of Chinese and American adolescents' media uses, and to look at the need for media literacy education hoping to suggest what and where media literacy education should be focused.

Perspectives and background

By definition, media literacy refers to the understanding of media and the use of it as a source

of information, entertainment, enrichment, growth, empowerment, and communication (Wan, 2006). Equally important to understanding media is to use information technology (IT) rather than allowing IT to use you (Wan, 2006). Many North American scholars and practitioners of media literacy education would agree that it emphasizes: (1) a personal focus on accessing and using media and technology; (2) the process of critically analyzing and evaluating the content, form and contexts of media messages and media systems and institutions; and (3) the ability to compose or create messages using digital, visual and electronic tools for purposes of self-expression, communication and advocacy (Hobbs, 2008).

There would not be such an urgent need for media literacy education for children if the media we use on a daily basis simply reflected reality, were neutral, and value free. All the media messages we come in contact with contain information about values, beliefs, and behaviors, and are shaped by economic factors (Ontario Ministry of Education, 1989).

New media allow children non-linear browsing, interactivity, manipulation of images, sound, various ways of communicating, and many other amazing things we never even dreamed of. "If students are to use new media to their own greatest advantage, they too must learn to creatively and critically browse, research, organize, select, and produce communication forms that use the full spectrum of literacy tools available to them" (Tyner, 2003, p. 374).

Today's students live in a world that is extremely fast-paced, constantly changing, increasingly culturally diverse, technologically-driven, and media-saturated. New media are changing the nature of teaching and learning that had been constant for centuries. Schools can not operate as if the only way to teach is through traditional classroom instruction. Thus, knowledge and skills of the full spectrum of the 21st Century new literacies become very important for young children if they want to use new media to their greatest advantage. Specifically, Toman and Jolls (2005) point to

> the basic higher-order critical and creative thinking skills-- e.g. knowing how to identify key concepts, how to make connections between multiple ideas, how to ask pertinent questions, formulate a response, identify fallacies-- that form the very foundation of both intellectual freedom and the exercising of full citizenship in a democratic society. (p. 8)

Becoming literate in the new century means that both teachers and students need to understand the influence of media on our society, develop strategies to critically analyze media, become independent from the influence of media, and open their minds to embrace and experiment with new tools of teaching and learning provided by the information age. No child's education is complete without media literacy education and skills of the 21st Century literacies.

Media literacy education in the United States

Nowadays, it is common to hear calls for media literacy education in the schools on a regular basis. Kubey and Baker (1999) argue that for four decades, both young people and adults in our society have

spent the majority of their leisure time in contact with electronic media. But all too many schools still operate as if the only forms of expression worthy of study are the poem, the short story, and the novel. FCC Commissioner, Michael Copps (2006), called for a sustained K-12 media literacy program to teach students not only how to use the media but how the media use them.

For twenty-five years, media literacy has been an established field of study in the school curriculum for many countries such as Canada, Australia, and England (Kubey, 2003; Thoman & Jolls, 2005). Buckingham (1999) concludes his study in England with a call for media education as a crucial dimension of contemporary citizenship education indicating that media education encourages young people's critical participation as cultural producers. As the world's leading media producer, the USA is one country where one might expect to find a substantial and coherent curriculum in media education. However, the United States has lagged behind some countries in the formal delivery of media education, and the reasons are historical, political, and sociological (Kubey, 2003).

In 2004, Montana was the first state to develop and require competency in media literacy standards for students in grades 4, 8, and 12 (Wikipedia, June 12, 2008). Although. the curriculum framework and national curriculum standards of all fifty states of the U.S (National Council of Teachers of English) that require some form of media literacy skills (Baker, 2006; Kubey & Baker, 1999) be addressed, for various reasons, including the decentralized nature of the U.S. educational system, media literacy is not taught systematically in U.S. schools.

Media Literacy Education in China

The lives of today's Chinese children have been increasingly affected by new media. Official statistics suggest that China has more than 1000 radio stations, 2200 newspapers and 3000 TV stations, 8000 magazines, and 371,600 Chinese language websites (Xinhua, 2004). China's web savvy population is second in the world after the U.S. (Internet World Stat, 2007). Similar, if not greater, concerns about children and media use exist in China. Chinese parents seek professional help for their children who are addicted to the Internet and neglect their schoolwork (Xinhua, 2004). In fact, the Internet is sometimes accused of being "an evil force, no less dangerous than drugs to young kids" (Xinhua, 2004, p. 3). Research also points out that very few Chinese TV programs for children deal with traditional Chinese culture (Xinhua, 2004), and mass media are criticized for marginalizing and undermining traditional Chinese values. Commercials on TV and the Internet are criticized for touting materialism, as well as carrying potentially obscene and violent messages.

Although many countries in the world, such as the UK, Canada, and Australia, have been providing their children with media literacy education since the 1980s, it was unheard of in the arena of Chinese education until late 1990s (Zhang, 2005). Since then, more and more people have recognized the importance of media literacy education for children, more and more researchers and scholars have joined the conversations, national conferences have been held, research institutions and centers established, and graduate programs set up to promote media literacy education in China.

Since 2004, in response to calls to protect minors, law enforcement agencies in China have launched nationwide campaigns to "uproot harmful information on the Internet." Internet cafes were shut down if they failed to keep minors off their premises. Chinese websites containing cyber violence and pornographic content have been penalized and shut down. Chinese websites all carry alert buttons for surfers to inform the webmaster of any "harmful information" on the site.

The question becomes which is more effective? Legislation or education? We believe, in this case, media literacy education is more effective than top-down government controls and legislations. By teaching children media literacy skills, we provide them with life-long learning and living skills that will be needed for the 21st century. There is a need to develop curriculum for media literacy awareness for millions of young Chinese and adults. However, no officially designated courses on media literacy have been included in the curriculum of any educational institution across the country in China. The absence of governmental policy on media education, the heavy workload under the current school curriculum for students, professional development for teachers in media literacy, and a shortage of funds for schools are likely major obstacles to the development of media literacy education at the grass-roots level in China.

We hope this study informs policy and curriculum developers, administrators, educators, parents, and students about the current status of Chinese and American children's media use, thus helping them make decisions about teaching media literacy to children in the two countries.

The Study

Our decision to examine the media use of children from the United States and China is driven by their unique differences and remarkable similarities. The two countries are completely different with regard to political systems, geography, language, and educational philosophy. One represents eastern and the other western culture; and one is developed while the other is a developing country, just to name a few major differences. Their remarkable similarities are the second major reason for this study. They are countries of similar size, and each has the potential to exert global impact. One represents a superpower in many ways and the other a "super population."

Finally, children on both sides of the Pacific Ocean live in the same age of rapid technological advancement. The Internet World Stats (2007) reports that the U.S. and China have the greatest number of Internet users in the world. Nearly 19% or 211 million of the Internet users in the world are in the U.S., while 12.3% or 137 million of Internet users are in China. With all of their differences and similarities, we sought to explore similarities and differences in how children in these two countries use media and if the two countries display similar needs for media literacy education in their schools.

Inspired by UNESCO's (United Nations Educational Scientific and Cultural Organization) global media education survey, Youth Media Education Survey 2001 (Domaille & Buckingham, 2001) that involved 35 countries with their differences and similarities in education and political systems, we believe this study will be interesting and meaningful as well.

Sources of data

The data used in this study are derived from three major studies, one study in China and two studies in America. American data are drawn from studies conducted by the Kaiser Family Foundation and the Current Population Survey (CPS) prepared by the National Center for Education Statistics. These studies are described in more detail below.

Chinese data. A 40-minute survey was administered to more than 1500 Chinese students in Beijing, Dalian, Taiyuan, and Yangquan. Nine hundred and fifty-five surveys were returned. It was one of the largest national studies on children's media use in China at the time of the study. Both situated in Shanxi Province, Taiyuan is the capital city and Yangquan is historically a heavy industrial and mining community. Both Taiyuan and Yangquan were selected because they represent medium-sized inland cities with limited economic and natural resources. Dalian was selected to represent coastal cities with historically and currently more advanced economic development and natural resources. Beijing, being the capital city of the country, provides the most variety in resources and opportunities, and was selected to represent major and big cities in China.

Another important reason for selecting these sites is that they were the schools to respond to our call for participation in the study. Although the researchers tried to select sites that represented geographic and economic diversity as much as possible, since China is a huge country with many diversities in region, economic development, and ethnicities, generalization of the findings is limited, however, the study does not claim to be comprehensive.

Trained researchers went to the sites and administered the survey in the classrooms after securing school administration and parental permission during spring of 2005. All students in participating secondary schools with parental permission were invited to participate. As participation was voluntary, some students chose not to participate. Of the 1500 surveys sent out, 955 were completed, resulting in a 64% response rate. Students were asked 21 questions concerning their access to media at school and home; their top five cultural values; how they use media, how much time they spend using media, and whether they have any rules at home for media use. Students were provided with the questionnaire in Chinese and encouraged to use English as much as possible. The survey results were then translated into English, coded, and analyzed by the researchers. The English version of the survey can be found in the Appendix.

American data. In order to examine the trends in media use between Chinese and American adolescents, data regarding American students' use of media were derived from two sources. The first study, *Generation M: Media in the Lives of 8-18 Year-olds* (Roberts, Foehr, & Rideout, 2005), sponsored by the Kaiser Family Foundation, examined media use among a nationally representative sample of 2,032 3rd through 12th graders who completed detailed self-administered questionnaires, including nearly 700 self-selected participants who also maintained seven-day media diaries. The sample was collected using a stratified, two-stage national probability sample, originally selected from a list of approximately 80,000 public, private, and parochial schools in the United States. The selection was made to account for differences in grade, region of the

country, size of residence locale (urban, suburban, rural), gender, and race/ethnicity. The questionnaires took approximately 40 minutes to complete and were administered during English classes by a representative of the Kaiser Family Foundation to ensure uniformity of administration to all students. Data were collected between October, 2003, and March, 2004. Whenever possible, comparisons were made using only the data from the 11- to 18-year-olds in order to provide a more accurate comparison with the Chinese adolescents.

The second American study, *Computer and Internet Use by Students in 2003: Statistical Analysis Report* (DeBell, & Chapman, 2006), sponsored by the National Center for Education Statistics: Institute of Education Sciences, examined data from the Current Population Survey (CPS) design. According to DeBell and Chapman (2006), "the CPS is a representative sample survey of all households in the United States…conducted in approximately 56,000 dwelling units" (p. 45). A member of each household (at least 15 years of age) served as the informant for that household, responding to questions regarding media use via a phone interview. Data were collected on 53,013 students ages 5-18. For purposes of comparison, only data from the 15- to 18- year-old group were used.

Results

An accurate statistical comparison between three different sets of data was not possible, so for the purposes of this study, only general trends are reported. One complication in our analysis of trends is that data reported in these three studies were clustered differently for each study. Therefore, our best efforts were made at matching like groups for comparison to determine general trends. Additionally, due to discrepancies in the types of questions asked, only selected information collected from the Chinese survey is reported here.

Demographics

Age, gender, and grade level of participants. In general, the Chinese study had a greater percentage of older children participating in their study as compared to the Kaiser and the NCES study. In the Chinese study, 53% of the participants were enrolled in grades 10-12, while 27% were in the same grades for the Kaiser study and 33% in grades 9-12 for the NCES study. The Chinese study clearly had a greater percentage of older students when examining the breakdown by age (see Table 1).

The genders were nearly equal in their representation for all three studies with females representing 55% of the participants in the Chinese study, and 49% in both the Kaiser and the NCES studies.

Table 1

Student demographics by study

Characteristic	China	Kaiser	NCES
Age	(in percentages)		
8 – 10	0	27	44 (< 11 yrs.)
11 – 13	32	32	31
14 – 18	67	42	23
Grade			
< 7	0	40	44 (< 6th gr.)
7 – 9	47	31	23 (6 – 8th gr.)
10 – 12	53	27	33 (9 - 12th gr.)
Gender			
Male	45	51	51
Female	55	49	49

Self-reported academic grades. Interestingly, a greater percentage of American students in the Kaiser study reported getting more Bs and fewer Ds than students in the China study as reported in Table 2 below. Potential explanations for the differences may be due to grade inflation which is reportedly an issue in many American schools, or American students' reluctance to self-report poorer grades.

Table 2

Self-reported academic grades in percentages

Grades/Scores	China	Kaiser
A (above 90)	15	14
B (90 – 80)	34	43
C (80 – 70)	26	28
D (70 – 60)	19	7
F (Below 60)	3	3

Media use

As stated earlier, young people today live media-saturated lives, spending an average of 6.5 hours a day using media, and are exposed to media for more than 8.5 hours a day (Roberts, Foehr, & Rideout, 2005). Therefore, it is important to consider which media adolescents are spending their time with and approximately how much time they are allocating to each type of media.

Print media. When asked to report the amount of time spent daily reading for pleasure, overall, 85% of the Chinese students reported spending time reading for pleasure on a daily basis, as compared to 74% of the American students. Regarding the amount of time spent reading for pleasure, the percentage of Chinese and American students that spent more than 30 minutes a day did not differ. However, a greater percentage of Chinese students (40%) reported reading for less than 30 minutes a day as compared to 27% of the American students.

Television viewing. By comparison, there were interesting differences in the time adolescents spent watching television. Greater percentages of Chinese students reported spending less than 1 hour watching TV (82%) compared to 33% of American students. The remaining 66% of American students were divided with 28% spending between one and three hours a day watching, with the remaining 38% watching television for more than 3 hours per day (as compared to 13% and 5% for Chinese students).

Video gaming. An overwhelming 91% of American students reported playing video games, as compared to 47% of Chinese students. Not only did a greater percent of American students report playing video games, but they also reported playing them longer. A greater percent of American students played video games for 1-3 hours than Chinese students (10% versus 3%).

Computer access. According to the NCES report of Computer and Internet Use by Students in 2003, 85% of the 15- to 18-year-olds had direct access to computers, compared to 78% of Chinese adolescents. A greater percentage of American adolescents also had Internet access in their homes (80% versus 66%). However, based on the Generation M data, American students spend a shorter amount of time (less than one hour daily) using the computer, while a greater percentage of Chinese adolescents reported spending more than one hour daily using the computer (9% versus 2%).

Computer use. When addressing how adolescents use the computer, a greater percentage of Chinese students used the computer to gather information for school, check favorite websites, and visiting chat rooms than American students. A greater percentage of American adolescents reported using the computer to play games and check email than Chinese students. Table 3 presents the available data from all three studies.

Table 3

Percentage of computer use by category

Category of Use	China	NCES	Kaiser[a]
Gather Info for School	73	69	20
Play Games	45	57	27
Favorite Websites	59	-	34
Visit Chat Rooms	45	-	9
Email	28	56	25

[a] Reported only previous day's use

Rules for computer use. A little more than half of all Chinese and American students reported having parental rules for media use (59% and 55% respectively). The question still remains as to whether or not media-use rules are uniformly enforced and what control parents really have over their children's media use outside the home.

The data presented above provide insights into some interesting trends that will now be discussed and the subsequent implications for educators, parents, and the adolescents themselves. Areas for continued exploration and research will be addressed.

Discussion and implications

The data clearly show that adolescents in both China and the United States are using media for similar purposes and they are dedicating a growing amount of their waking hours interacting with media. Parents and other adults in both countries have expressed concerns regarding the impact or potential negative outcomes associated with increased media use by children and adolescents. Interestingly, only a little more than half of the adolescents in both countries reported parental rules for media use. It may be as Roberts, Foehr, and Ridout (2005) suggest,

that "the majority of parents either don't feel their children spend too much time with media, or that they have simply given up" (p. 60). Conversely, they also determined that

> parents who have kept media out of their children's bedrooms, who turn off the TV during meals, who set (and enforce) rules about media use in general and TV in particular, tend to be parents whose children spend substantially less time with electronic media and more time reading. (p. 60)

Given the high percentage of media-use by adolescents, it is clear that educators and parents in both countries have a two-fold responsibility. First, they must educate young people in the appropriate and ethical use of media. Second, they must find creative and interesting ways to utilize new media in the classroom to exploit students' interest in, and continued use of, media. We believe that both of these goals will be effectively addressed when parents and teachers in the two countries join hands to discuss various aspects of media literacy education with children at home and in schools.

In brief, media literacy is the ability to interpret and create personal meaning from the many verbal and visual symbols we take in. It is the ability to choose, to challenge and question, and to use

the media actively and consciously for one's own purposes (Pena, Lam, & Adiele, 2007). By nature, media literacy encourages an interdisciplinary approach to education and is a natural extension of the existing school curriculum. Teachers will be able to address media literacy education by teaching with and about media literacy in their classrooms (Wan, 2006). For example, in an English classroom, when we ask students to compare *Mulan*, the Disney movie with the original Chinese story, *The Legend of Mulan*, we teach critical reading skills, comparing and contrasting, comprehension, drawing conclusions, decoding, and logical reasoning skills at the same time.

When students discuss and write Internet safety rules, they practice writing skills and use art to convey meanings. When students create digital stories, they learn to create with multimedia tools and write scripts of their own. When a new sports drink made the claim on television that three out of four children interviewed love it, we may ask children "What about the thousands of other children not interviewed?" We may also encourage students to think about why on web sites there are so many attention-getters and attention-keepers, such as games, music, animations, and shopping. MySpace.com allows people to listen to up-and-coming artists. It is a lot of fun, but there is a catch. MySpace makes money by selling marketers each visitor's information. Once these marketers get the information, you can expect an inbox full of spam (Wan, 2007b).

Health and physical education may be easily integrated with media literacy education. Personal health is a natural extension of discussions about commercials for healthy snacks, diet food, exercise machines, dental care products, tobacco and alcohol. Conversations on how unrealistic the extra-slim or muscle-bound images portrayed in the media may help prevent eating disorders among adolescents.

Art education and media literacy go hand-in-hand. Discussions can address what techniques are used to attract our attention in a television program and newspaper advertisements. How does digital technology create virtual reality? How are television programs filmed with cameras? Why is seeing not believing anymore with digital manipulation? Knowledge of the arts helps students to answer these questions. Techniques, styles, and art media can be taught with various media literacy units when illustrations and artwork are required (Wan, 2006).

We empower students by nurturing their higher-order thinking skills. This goal of education is supported by media literacy because teaching students how to use critical thinking skills to understand, analyze, and evaluate media, and to make smart choices are the major purposes of media literacy education and the skills needed for life in the 21st century. We should encourage students to think about media and ask themselves: Who profits? Who loses? Who decides? And what is a more reliable source? We may also model how to question, evaluate, and use the Internet, TV, movies, music, video games, and other media creatively and critically by asking these questions (Wan, 2007a):

Who made the message and why? Who is the message for? How might others view the message differently? What is left out of the message? And how does the message get and keep my attention?

Last but not least, students may be taught time management skills so they will be able to better self-monitor their time spend on media and keep a balance between homework, reading and online surfing

and video games. We could also teach children the concepts of online proper behaviors and plagiarism so that they will better represent themselves online and become critical and knowledgeable consumers of media.

After arguing for the case of media education in the two countries and providing ideas for classroom implementations, we would like to point out that there is still a long way to go for China and the U.S. to develop media literacy education. Each country has its own unique situation. For example, a key characteristic of education in the U.S. is that it is locally organized and locally assessed; and this is seen by many to undermine the possibility of moving towards a national level media curriculum (Domaille & Buckingham, 2001). Support for media literacy in higher education was cited as one key area in need of development in the U.S. There are a few university-based programs, and only one university offers a higher degree in media literacy (Domaille & Buckingham). However, "even in countries where media education is comparatively well-established, there are very few opportunities for training, and only a minority of teachers are reached by it" (Domaille & Duckingham, p. 10).

Although academic and education professionals recognize the importance of media literacy education in China, it still does not exist as an officially designated course in the school curriculum. Also lack of governmental policy on media education and shortage of funds for teacher training are other major obstacles. In China, with its mostly centralized education system, governmental support is crucial for the development of media literacy education on a larger scale. We suggest that education professionals in China take every opportunity to advocate and campaign for media literacy education among all stakeholders including government policy-makers and parents to gain their support. No matter if the media education movement starts top-down or bottom-up, it would greatly benefit the young Chinese and the society in general. Deciding whether to "educate or to legislate" is also something that the Chinese people need to think about before they can fully embrace and implement the idea of media literacy education.

Conclusion

Acknowledging the limitations in data collection and matching the data from three different studies, the findings of this comparative study suggest that adolescents in both China and the United States are spending a great amount of their time using a variety of media. This offers strong support for the need to include media literacy education as an integral and integrated component in the academic curriculum. As Kathy Krauth suggested, the Eye Generation feels more comfortable expressing themselves in visual form. Now teachers are trying to harness the energy of the eye by using visual media such as television, movies, video games, photography, and Facebooking both to engage this "eye-curious" culture and to help students think critically about what they see (Weeks, 2007).
Through media literacy education, we help children deal with information overload and to find ways to steer them away from less desirable content and uses of media. Media literacy education courses help children become media literate, enabling them to sort through and find meaning in the daily media barrage (Pena, Lam, & Adiele, 2007).

Further studies should address adolescents' access to, and use of, the newest media (e. g., I-pods, IM, cell phones, Nintendo Wii). Studies should continue to explore techniques that educators and parents are currently using and document new and

innovative uses for new, developing technologies designed to enhance student learning. We hope this study draws the attention of stakeholders in both the U.S. and China to the importance of implementing media literacy education in schools.

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Appendix

Survey Questionnaire:

1. Which city do you live in?

2. Which middle or high school do you go to?

3. Which grade are you in?

3. Your Age? 1). 12-13; 2) 14-15; 3) 16-17; 4) 18-19; 5) other
4. Sex: 1) male; 2) female
5. What kind of grade do you usually receive at school? Circle only one
   1) A;   2) B;   3) C;   4). D
6. Do you like school? Why? Or Why not?
7. Does your family own any of the following equipments? Circle all the relevant ones please. 1) computer; 2) Internet access; 3) TV; 4) video game; 5) VCR/DVD player; 6) other

8. What after school activities do you do on each day of the week?
   MONDAY:
   TUESDAY:
   WEDNESDAY:
   THURSDAY:
   FRIDAY:
   SATURDAY:
   7) SUNDAY:
9. What are the top three activities that you enjoy doing for fun?
   1) _____ 2) _____ 3) _____

10. How much time do you spend on homework on a typical school night?
    1).0-1/2 hr.   2). ½ -1 hr   3).1-2 hr.   4). 2-3 hr.   5). 3-4 hr.   6).More than 4 hrs.

11. How much time do you spend on using mass media (Internet, computer, video games and TV, etc) at home daily?
    1). 0-1/2 hr.   2). ½ -1 hr   3). 1-2 hr.   4). 2-3 hr.   5). 3-4 hr.   6).More than 4 hrs.

12. Do you watch movies or videos? 1).Yes   2). No.
    a. If yes, how often?
       1). once a week; 2).once a month; 3). twice a month ;4). Rarely 5). other

13. How much time do you spend watching TV daily?
    1). 0-1/2 hr. 2). ½ -1 hr   3). 1-2 hr.   4). 2-3 hr.   5). 3-4 hr.   6).More than 4 hrs.
14. Do your parents have any rules for you at home regarding the use of the Internet, TV or video games?
    1).Yes, 2).No.
    a. If yes, what are they?
    b. When you are on the Internet do you:
        1). search for information for school?   Yes   No
        1) surf for interesting material?   Yes   No
        2) check favorite sites   Yes   No
        3) belong to a chat group   Yes   No
        4). use e-mail   Yes   No
        5). other (please describe)
    d. How much time do you spend on the Internet daily?
        1). 0-1/2 hr.   2). ½ -1 hr   3). 1-2 hr.   4). 2-3 hr.   5). 3-4 hr.   6).More than 4 hrs.

15. Do you play video games? 1) Yes; 2) No.
    a. How often do you play electronic/video games?
        1) every day
        2) every other day
        3) a few times per week
        4) rarely
    b. How much time do you spend on playing games daily?
        1). 0-1/2 hr.   2). ½ -1 hr   3). 1-2 hr.   4). 2-3 hr.   5). 3-4 hr.   6).More than 4 hrs.

16. Do you like music? 1). Yes. 2) No.
    a. If yes, what kinds of music do you like? (circle as many as appropriate)
        1). Chinese folk;   2) Chinese classic;   3). Pop;   4).Rock;   5).Rap;   6).Hip hop;   7). other

17. Do you read books for fun at home? 1) Yes   2). No.
    a. What kind of books (e.g. classic novels, fantasy, poetry, realistic fictions, etc.) do you enjoy reading?
    b. How much time do you read daily?
        1). 0-1/2 hr.   2). ½ -1 hr   3). 1-2 hr.   4). 2-3 hr.   5). 3-4 hr.   6).More than 4 hrs.

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